



UNITED STATES PATENT AND TRADEMARK OFFICE

Eoh
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,945	06/01/2001	Mikael Agnevik	2380-317	8708
23117	7590	02/07/2006		EXAMINER
				LEE, ANDREW CHUNG CHEUNG
			ART UNIT	PAPER NUMBER
				2664

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/870,945	AGNEVIK ET AL.
	Examiner Andrew C. Lee	Art Unit 2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 November 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-50 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 34, 37 – 50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. (US 6834053 B1) in view of Medhat et al. (US 6314103 B1).

Regarding Claim 1, Stacey et al. disclose the limitation of a method of managing traffic for transport on an Asynchronous Transfer Mode (ATM) virtual path (VP) (Abstract, lines 1 – 8; column 1, claim 1, lines 48 – 53), Stacey et al. teach AAL2 supporting a multiplex of user channels within a single virtual channel connection (VCC) (column 1, lines 48 – 60), and including for transport on a same virtual path (VP), ATM cells of a second type other than a first type of ATM cells which comprise the AAL2 path group (Fig. 4, element “Non-AAL2 ATM PDUs”; column 1, lines 53 – 60; column 7, lines 10 – 17; column 8, lines 47 – 53). Stacey et al. do not disclose expressly the method comprising: forming an AAL2 path group which comprises plural AAL2 paths; admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL path. Medhat et al. disclose the limitation of method comprising: forming an AAL2 path group which comprises plural AAL2 paths (column 2, lines 55 – 57; column 18, lines 22 – 29); admitting connections based on available

bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path (column 7, lines 16 – 41; column 8, lines 22 – 40; column 10, lines 25 – 34; column 19, lines 44 – 55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stacey et al. to include the method comprising: forming an AAL2 path group which comprises plural AAL2 paths; admitting connections based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path such as that taught by Medhat et al. in order to provide a system that can manage virtual connections in broadband systems so that the available bandwidth capacity is more effectively utilized (as suggested by Medhat et al., see column 2, lines 1 – 2).

Regarding Claims 2, 13, 28, 42, Stacey et al. disclose the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 traffic cells (column 1, lines 47 – 50) and the second type of ATM cells comprises cells dedicated to at least one of signaling, operation and maintenance, and synchronization (column 2, lines 52 – 55).

Regarding Claims 3, 14, 29, 43, Stacey et al. disclose the limitation of a method of claimed wherein the second type of ATM cells comprises cells which require a guaranteed bandwidth (column 8, lines 47 – 54).

Regarding Claims 4, 15, 30, 44, Stacey et al. disclose the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells (Fig. 4, element 13) and the second type of ATM cells comprises non-AAL2 cells (Fig. 4, element “Non-AAL2 ATM PDUs”).

Regarding Claims 5, 16, 32, 45, Stacey et al. disclose the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells from AAL2 paths with differing QoS classes (Fig. 4, column 11, lines 53 – 65).

Regarding Claims 6, 17, 31, 46, Stacey et al. disclose the limitation of a method of claimed wherein the first type of ATM cells comprises AAL2 cells having an unspecified bit rate (UBR) (column 4, lines 8 – 16; lines 21 – 27) and the second type of ATM cells comprises AAL2 cells have a bit rate type other than UBR (column 3, lines 8 – 12).

Regarding Claims 7, 18, 33, 47, Stacey et al. disclose the limitation of a method of claimed wherein a given one of the AAL2 paths carries AAL2 cells having a same Quality of Service (QoS) requirement (column 11, lines 53 – 64).

Regarding Claims 8, 19, 34, 48, Stacey et al. disclose the limitation of a method of claimed further comprising allocating more delay-sensitive traffic to a different AAL2 path than less delay-sensitive traffic (column 11, lines 66 – 67; column 12, line 1).

Regarding Claims 9, 22, 39, 49, Stacey et al. disclose the limitation of a method of claimed further comprising providing differing treatment for differing AAL2 connections within the AAL2 path group based on the QoS requirements for the differing AAL2 connections (Fig. 4, element 313; column 11, lines 56 – 67; column 12, lines 1 – 2).

Regarding Claims 10, 23, 40, 50, Stacey et al. disclose the limitation of a method of claimed further comprising providing a greater weighting or priority for more delay sensitive AAL2 connections (Fig. 4, column 11, lines 66 – 67; column 12, line 1).

Regarding Claims 11, 12, 24, 25, 41, Stacey et al. disclose the limitation of a node of an Asynchronous Transfer Mode (ATM) and a traffic scheduler (Abstract, lines 1 – 4). Stacey et al. teach AAL2 supporting a multiplex of user channels within a single virtual channel connection (VCC) (column 1, lines 48 – 60), a scheduler which applies ATM cells of the path group and the non-path group ATM virtual circuit (VC) to a same ATM virtual path (VP) for transmission to another node of the network (Fig. 4, element “Non-AAL2 ATM PDUs”, 312; column 1, lines 53 – 60; column 7, lines 10 – 17). Stacey et al. do not disclose expressly ATM comprising: a plurality of AAL2 paths which together form an AAL path group wherein a connection being admitted to one of the AAL2 paths of the AAL path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path; a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths; a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL path group. Medhat et al. discloses the limitation of expressly ATM comprising: a plurality of AAL2 paths which together form an AAL2 path group wherein a connection being admitted to one of the AAL2 paths of the AAL2 path group is based on available bandwidth of the AAL2 path group rather than available bandwidth of an individual AAL2 path (column 2, lines 55 – 57; column 18, lines 22 – 29; column 18, lines 22 – 29); a path group scheduler which selects ATM AAL2 cells from the plurality of AAL2 paths; a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL2 path group (Fig. 5, column 7, lines 16 – 41; column 8, lines 22 – 40;

column 14, lines 56 – 67; column 14, lines 53 – 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stacey et al. to include expressly ATM comprising: a plurality of AAL paths which together form an AAL path group wherein a connection being admitted to one of the AAL paths of the AAL path group is based on available bandwidth of the AAL path group rather than available bandwidth of an individual AAL path; a path group scheduler which selects ATM AAL cells from the plurality of AAL paths; a non-path group ATM virtual circuit (VC) which includes ATM cells of a second type other than the ATM cells of a first type which comprise the AAL path group such as that taught by Medhat et al. in order to provide a system that can manage virtual connections in broadband systems so that the available bandwidth capacity is more effectively utilized (as suggested by Medhat et al., see column 2, lines 1 – 2).

Regarding Claims 20, 37, Stacey et al. disclose the limitation of an apparatus of claimed wherein the path group scheduler is a weighted fair queuing scheduler (Fig. 4, column 13, lines 38 – 40).

Regarding Claims 21, 38, Stacey et al. disclose the limitation of an apparatus of claimed wherein the path group scheduler is a strict priority scheduler (column 11, lines 66 – 67).

Regarding Claim 26, Stacey et al. disclose the limitation of a node of an Asynchronous Transfer Mode (ATM) (Abstract, lines 1 – 4). Stacey et al. do not disclose expressly the apparatus of claimed, wherein the connection admission controller unit is situated at the first network node. Medhat et al. disclose the limitation of the apparatus

of claimed wherein the connection admission controller unit is situated at the first network node (column 8, lines 22 – 40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stacey et al. to include a apparatus of claimed, wherein the connection admission controller unit is situated at the first network node network such as that taught by Medhat et al. in order to provide a system that can manage virtual connections in broadband systems so that the available bandwidth capacity is more effectively utilized (as suggested by Medhat et al., see column 2, lines 1 – 2).

Regarding Claim 27, Stacey et al. discloses the limitation of a node of an Asynchronous Transfer Mode (ATM) (Abstract, lines 1 – 4). Stacey does not discloses expressly the apparatus of claimed wherein the connection admission controller unit is situated at the second network node. Medhat et al. discloses the limitation of the apparatus of claimed, wherein the connection admission controller unit is situated at the second network node (column 8, lines 22 – 40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stacey et al. to include a apparatus of claimed, wherein the connection admission controller unit is situated at the second network node network such as that taught by Medhat et al. in order to provide a system that can manage virtual connections in broadband systems so that the available bandwidth capacity is more effectively utilized (as suggested by Medhat et al., see column 2, lines 1 – 2).

3. Claims 35, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stacey et al. (US 6834053 B1) and Medhat et al. (US 6314103 B1) as applied to claims 1 – 34, 37 - 50 above, and further in view of Subbiah (US 6725038 B1).

Regarding Claim 35, both Stacey et al. and Medhat et al. do not disclose expressly the apparatus of claimed wherein one of the first network node and the second network node is a base station node. Subbiah discloses the limitation of the apparatus of claimed wherein one of the first network node and the second network node is a base station node (Fig. 4, Fig. 5, elements BS; column 5, lines 45 – 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify both Stacey et al. and Medhat et al. to include an apparatus of claimed wherein one of the first network node and the second network node is a base station node such as that taught by Subbiah in order to provide dynamic AAL2 path allocation configuration in an ATM system/network.

Regarding Claim 36, both Stacey et al. and Medhat et al. do not disclose expressly the apparatus of claimed wherein the one of the first network node and the second network node is a radio network controller node. Subbiah discloses the limitation of disclose the apparatus of claimed wherein the one of the first network node and the second network node is a radio network controller node (Fig. 4, elements 424, Fig. 5, elements 530, 532; column 6, lines 22 – 25; column 7, lines 1 –19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify both Stacey et al. and Medhat et al. to include disclose the apparatus of claimed wherein the one of the first network node and the second network node is a radio

network controller node such as that taught by Subbiah in order to provide dynamic AAL2 path allocation configuration in an ATM system/network.

Response to Arguments

4. Applicant's arguments filed 11/21/2005 with respect to claims 1 – 50 have been considered but they are not persuasive.

Regarding claims 1, 11, 24, 41, Applicant argues Medhat et al. teaches a virtual path group, not an AAL2 path group which is carried on a same virtual path (VP). Examiner contends Medhat et al. disclose implicitly and teach a virtual path group, an AAL2 path group which is carried on a same virtual path (VP) (see column 3, lines 15 – 17; column 10, lines 25 – 34; column 11, lines 22 – 24; column 19, lines 44 – 64).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

ACL

Jan 31, 2006